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EXAMINER

REVAK, CHRISTOPHER A

ART UNIT	PAPER NUMBER
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2131

DATE MAILED: 07/26/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/560,788

Applicant(s)

WITT ET AL.

Examiner

Christopher A. Revak

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 26 April 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-45 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-17, 19-24, 26-35, 38-40, 44, 45 is/are rejected.
- 7) ☒ Claim(s) 18, 25, 36, 37 and 41-43 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Arguments

1. Applicant's arguments filed April 26, 2004 have been fully considered but they are not persuasive.

It is argued by the applicant that Jones does not teach of preventing a change. The examiner respectfully disagrees, Jones discloses of preventing the change by reciting of removal and replacement of the file (see col. 9, lines 61-68).

The applicant further argues that Kishi fails to disclose of verifying the file to determine if the change is permitted by a verification mechanism. The examiner disagrees for it is taught by Kishi of determining is performed by a verification mechanism since it is software that makes the determination and the software needs to be executed by a processor, or verification mechanism (col. 4, lines 22-54).

It is argued by the applicant that Krishnaswami does not teach of preventing a change. The examiner respectfully disagrees, Krishnaswami discloses of preventing the change by reciting of removal and replacement of the file (see col. 1, lines 60-64).

2. Applicant's arguments and presenting evidence of common ownership has complied with MPEP 706.02(I)2 II. The rejection of claims 18,25,36,37, and 41-43 under 35 U.S.C. 103(a) with application of the teachings of Parthensarathy and Krishnaswami has been withdrawn.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000. Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

4. Claims 1-4,8,9,19-23, and 30 are rejected under 35 U.S.C. 102(b) as being anticipated by Jones.

As per claim 1, Jones in an analogous art, adequately discloses receiving information indicative of a possible change to a protected file (see col. 9, lines 58-61 in which it is stated that in the event that files are inconsistent, the user is notified.) As per determining whether the change is valid by verifying the file, Jones discloses that the file is identified and the system is locked until corrective action is taken, including removal and replacement of the file or an override by the system administrator, thus the administrator is making the determination as to whether the change is valid (see col. 9,

lines 61-68). This decision made by the system administrator constitutes the verification of the alerted-to file as being performed by a verification mechanism.

As per preventing the change, preventing the change, Jones discloses removal and replacement of the file (see col. 9, lines 61-68).

As per claim 2, it is rejected on the same basis as claim 1 above because the received information indicative of a possible change does in fact include receiving notification indicative of a change to a protected file, as mentioned above.

As per claim 3, it is rejected on the same basis as claim 2 above because claim 2 recites the limitation of notification indicative of a change to a protected file. Claim 3 differs from claim 2, only in that claim 3 recites the limitation of accessing information to determine whether the file is protected. Jones also discloses file access criteria developed when the security system is first implemented, to include information such as names of files to be protected, and only accessible to a system administrator (see col. 9, lines 19-38.)

As per claim 4, it is rejected on the same basis as claim 1 above because preventing the change by way of removal and replacement is discussed in Jones, as mentioned above, which is in effect overwriting a changed copy.

As per claim 8, it is rejected on the same basis as claim 1 above, because the use of file signatures to test the validity of changes is discussed by Jones, (see Col. 9, lines 49-57).

As per claim 9, it is rejected on the same basis as claim 1 above because it differs from claim 1 only in that it recites the limitation of monitoring files in a file system, which

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is also adequately disclosed in Jones (see col. 9, lines 49-68, in which the process of monitoring the system during startup takes place.)

As per claim 19, it is rejected on the same basis as claim 1 above because it differs from claim 1 only in that it recites the limitation of receiving information that a protected file is about to be changed, preserving a copy of the protected file, and wherein preventing the change includes overwriting a changed copy of the file with a copy of the protected file that was preserved.

As per receiving information that a protected file is about to be changed (see col. 9, lines 58-61).

As per preserving a copy of the protected file, Jones discloses removal and replacement of the file (see col. 9, lines 61-68), which means that the protected file must have been preserved.

As per preventing the change includes overwriting a changed copy of the file with a copy of the protected file that was preserved, Jones discloses removal and replacement of the file (see col. 9, lines 61-68), which in effect overwrites the changed copy.

As per claim 20, Jones discloses selecting a plurality of files as protected files, see col. 3, lines 40-43, in which the files to be protected are designated.

As per receiving information indicative of a possible change to a protected file, see col. 9 lines 58-63, in which inconsistencies to files results in a notification to the user.

As per determining whether the file is an exception case, and if so

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allowing the change, Jones discloses that the corrective action to be taken to resolve the inconsistency to the file might include an override. This would be done if it were an exception.

As per determining whether the change is valid by verifying the file, and if so allowing the change, and if not preventing the change, see col. 9, lines 58-68, in which Jones discloses that the file is identified and the system is locked until corrective action is taken, including removal and replacement of the file or an override, thus the determination as to whether the change is valid is made (see col. 9, lines 61-68). This decision constitutes the verification of the alerted-to file, and the action taken is to either allow the change or deny the change, by either overriding, or by removal and replacement of the changed file, respectively. This decision made constitutes the verification of the alerted-to file as being performed by a verification mechanism.

As per claim 21, it is rejected on the same basis as claims 2 and 20 above.

As per claim 22, it is rejected on the same basis as claims 3 and 20 above.

As per claim 23, it is rejected on the same basis as claims 4 and 20 above.

As per claim 30, it is rejected on the same basis as claims 20 above, because Jones also discloses the use of file signatures to test the validity of changes is, (see col. 9, lines 49-57).

5. Claims 1 and 5 are rejected under 35 U.S.C. 102(b) as being anticipated by Kishi.

As per claims 1 and dependent claim 5, Kishi adequately discloses, in a computer system, a method comprising: receiving information indicative of a possible change to a

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protected file, and determining whether the change is valid by verifying the file, and if not valid, preventing the change including discarding change data, (see figure 2). The determination aspect is performed by a verification mechanism since it is software that makes the determination and the software needs to be executed by a processor, or verification mechanism (col. 4, lines 22-54).

6. Claims 1,3,4,6,7,9,19,31-35,38-40, and 44 are rejected under 35 U.S.C. 102(e) as being anticipated by Krishnaswami.

As per claim 1,

As per "in a computer system, a method comprising receiving information indicative of a possible change to a protected file" see Krishnaswami, claim 1, in which it cites a method in a computer system comprising detecting a change being made to a protected file, and saving the copy before the change is made. This means that the component copying the file before the change must have been received information indicative of a possible change to a protected file.

As per "determining whether the change is valid by verifying the file," see Krishnaswami, claim 1 in which it cites determining whether the change to the shared system file is valid, including comparing a version number and hash with another file. This constitutes the verification as performed by a verification mechanism.

As per "and if not valid, preventing the change" see Krishnaswami in which Claim 1 cites if the change is invalid undoing the change.

As per claim 3, see Krishnaswami, claim 9.

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As per claim 4,

As per the method of claim 1 wherein preventing the change includes overwriting a changed copy of the file with a valid copy of the protected file, see Krishnaswami claim 6.

As per claim 6, see Krishnaswami, claim 1.

As per claim 7, see Krishnaswami, claim 4.

As per claim 9, see Krishnaswami, claim 1.

As per claim 19, see Krishnaswami, claim 1.

As per claim 31,

As per a protected file, see Krishnaswami, claim 1 in which it cites protecting shared system files, constituting a computer system comprising at least a protected file.

As per a detection mechanism configured to determine when a protected file may be changed, see Krishnaswami, claim 1, in which it is cited that a the system comprises detecting a change being made to a file that is to be protected.

As per a verification mechanism, see Krishnaswami, claim 1 in which it cites determining whether the change to the shared system file is valid, including comparing a version number and hash with another file. This constitutes the verification.

As per a file protection service, see Krishnaswami, claim 12, in which the system comprises a file protection service component.

As per the file protection service configured to receive a determination from the detection mechanism that the protected file may be changed, and further configured to communicate with the verification mechanism to verify whether the change is valid, and

to prevent the change when the change is not valid, see Krishnaswami, claim 12, all text below "the monitoring component monitoring changes to system..."

As per claim 32, it is rejected on the same basis as claim 31, because Krishnaswami also cites a monitoring component as part of the detection service which monitors protected files for changes, as mentioned above.

As per claim 33, it is rejected on the same basis as claim 31, because Krishnaswami also cites a computer system wherein the detection mechanism provides a notification to the file protection service as the determination mechanism that the protected file may be changed. See claim 12, which cites that the monitoring service detects a change being made, and prior to the change being made it saves a copy of the protected file, and notifies the file protection service.

As per claim 34, it is rejected on the same basis as claim 31, because Krishnaswami also cites the file protection service accessing a database identifying protected system files installed on a computer.

As per claim 35, it is rejected on the same basis as claim 31, because Krishnaswami also discloses that the operating system is provided with a monitoring component, which means that the file protection service is a part of the file system. See col.1, lines 64-67.

As per claim 38, it is rejected on the same basis as claim 31, because Krishnaswami, claim 1 also discloses verification whether a file change is valid by comparing a hash of the file contents against a hash associated with a valid file.

As per claim 39, it is rejected on the same basis as claim 38, because Krishnaswami, claim 3 also cites comparing the hash of the changed version with that of another file on the system wherein the comparing includes retrieving data regarding the highest version of the shared system file from a database containing data identifying protected files installed on a computer system.

As per claim 40, it is rejected on the same basis as claim 31, because Krishnaswami, claim 12 cites undoing the change by using the saved copy of The protected file before the change. Examiner asserts that it is a known method to copy a valid file over an unwanted changed version of the same file.

As per claim 44, it is rejected on the same basis as claims 40 and 19 above.

As per claim 45, it is rejected on the same basis as claim 31, because it Includes all limitations of claim 31, and further limits it citing the system of claim 31 further comprising a scanning mechanism for causing a plurality of files to trigger the detection system, and this limitation is also found in Krishnaswami. See Krishnaswami claim 1, in which a monitoring system is disclosed. The monitoring system discovers the change to all files that have been changed. Examiner asserts that the monitoring system must perform a scan as part of the process of discovering these changes.

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. Claims 10-13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Jones, as applied to claim 1, in view of Midgeley.

As per claim 10, dependent from claim 1, Jones discloses all limitations of Claim 1 as discussed above. Jones does not explicitly disclose the further limitations of the method of claim 1, wherein preventing the change includes copying a valid copy of the protected file to a former location of the protected file. However, Midgeley in an analogous art, adequately discloses reversing a change to a protected file by first caching valid copies of the file and storing it in an archive, and then restoring it from the archive (see col. 2, lines 34-44, and lines 8-18). It would have been obvious to one having ordinary skill in the art at the time the invention was made to prevent a change to a protected file by incorporating the method of copying a valid copy of the protected file to a former location of the protected file. One would have been motivated to do so because the cache archive of the files provides rapid access to the most recent good version of the file as explained in Midgeley (see col. 1, lines 50-58).

As per claim 11, dependent from claim 10, Midgeley discloses that the Archived files are cataloged with detailed information including full filename, timestamp information and so on, and the catalog is used so that a user can request a restoration of a file (see

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col. 10, lines 8-21). The filename of the file in the catalog constitutes the identity of a file. In order to restore a given file, it is disclosed that a user could request it by identity, and locate it in the catalog for restoration. It would have been obvious to one having ordinary skill in the art at the time the invention was made to find a file having the same identity as the protected file, in order to restore the sound version of the file. One would have been motivated to so because it is the corrupted file that the user would be seeking to replace, and they would have to find a file having the same identity in order to replace it.

As per claim 12, it is rejected on the same basis as claim 11, because it Depends from claim 11, which depends from claim 10, and further limits 11 by confining the search location of the identity of the file to be replaced to include accessing a cache which is all ready a limitation discussed in the rejection of claim 10.

As per claim 13, dependent from claim 12, it is rejected on the same basis As claim 12 discussed above, in addition to the fact that Midgeley further discloses verifying the file having the same identity (see col. 2, lines 45-54). It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Jones in view of Midgeley such that Jones's method included verifying the file having the same identity. One would have been motivated to do so because it is desirable to make sure that the cached files are in fact valid copies of the files.

9. Claims 14-17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Jones in view of Midgeley as applied to claim 11 above, in further view of www.dll-files.com, hereinafter Dllfiles.

As per claim 14, the Jones-Midgeley combination discloses all limitations of claim 11 as discussed above, but fails to explicitly disclose finding the file having the same identity as the protected file includes accessing a network. However, Dllfiles, in an analogous art, adequately discloses accessing a network to find files having the same identity as those files which are missing. It would have been obvious to one having ordinary skill in the art at the time the invention was made to utilize the teaching of Dllfiles files such that the Jones-Midgeley combination accessed a network in order to find files having the same identity as protected files by accessing a network. One would have been motivated to do so because Dllfiles discloses this as a solution to restoring missing files.

As per claim 15, dependent from claim 14, it is rejected on the same basis As claim 14 discussed above, because the fact that the Jones-Midgeley combination discloses verifying the file having the same identity (see Midgeley col. 2, lines 45-54), as discussed previously.

As per claim 16, dependent from claim 15, it is rejected on the same basis as claim 15, because Midgeley also discloses finding the file having the same identity as the protected file by accessing a recorded medium (see col. 2, lines 63-66, and col. 3, lines 8-18, in which it is disclosed that the files are recorded to a removable storage media, and that they are readily accessible for recovery through this avenue.) It would have

been obvious to one having ordinary skill in the art at the time the invention was made to include Midgeley's feature of finding the file having the same identity as the protected file by accessing a recorded medium in the Jones-Midgeley-Dllfiles combination. One would have been motivated to do so because Midgeley discloses that this would allow a nearly up-to-date protected file always available (see col. 3, lines 8-18).

As per claim 17, dependent from claim 16, it is rejected on the same basis As claim 16 discussed above, because the fact that the Jones-Midgeley-Dllfiles combination discloses verifying the file having the same identity (see Midgeley col. 2, lines 45-54), as discussed previously.

10. Claim 24 is rejected under 35 U.S.C. 103(a) as being unpatentable over Jones as applied to claim 20 above, in view of Kishi as applied to claim 5 above.

11. Claim 26 is rejected under 35 U.S.C. 103(a) as being unpatentable over Jones as applied to claim 20 above, in view of Rogue Wave Software, 1996.

Jones Discloses all limitations of claim 20 as discussed above, however, Jones, fails to explicitly disclose the use of a copy-on-write saving process for allowing the change. However, RogueWave Software, in an analogous art, adequately discloses the copy on Write process for saving. It would have been obvious to one having ordinary skill in the art at the time the invention was made to include this feature in the file protection system of Jones, in order to allow changes without immediately overwriting the original file. One would have been motivated to do so, because this technique offers the advantage of minimized copying, making it more efficient and quick, as discussed by Rogue Wave Software, paragraph 1.

12. Claim 27 is rejected under 35 U.S.C. 103(a) as being unpatentable over Jones as applied to claim 20 above, in view of Swift.

Jones discloses all limitations of claim 20 as discussed above, however, Jones, fails to explicitly disclose determining whether the file is an exception case including checking a security descriptor of the file. However, Swift in an analogous art, adequately discloses checking a security descriptor that associates a file with the access owner of the file, (see col. 13, lines 1-19). It would have been obvious to one having ordinary skill in the art at the time the invention was made to check a security descriptor of the file in order to determine whether the file was an exception case. One would have been motivated to do so because, it would allow change by the owner of the file, and otherwise restrict it, thus making secure and wanted changes, while controlling the rest of them.

13. Claim 28 is rejected under 35 U.S.C. 103(a) as being unpatentable over Jones, as applied to claim 28 above, in view of examiner.

Jones discloses all limitations of claim 20 as discussed above, however, Jones, fails to explicitly disclose providing a prompt before allowing a change. However, examiner respectfully asserts that it is well-known in the art that a prompt may be provided prior to writing changes made to a file, in order to confirm that the change is actually the intention of the user. One would have been motivated to use such a prompt because it would accommodate for an abort process in the event that the user did not want to allow/save the changes.

Claim 29 is rejected under 35 U.S.C. 103(a) as being unpatentable over Jones

as applied to claim 20 above, in view of Kishi as applied to claim 6 above.

Allowable Subject Matter

14. Claims 18,25,36,37, and 41-43 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

15. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Christopher A. Revak whose telephone number is 703-305-1843. The examiner can normally be reached on Monday-Friday, 6:30am-4:00pm.


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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ayaz Sheikh can be reached on 703-305-9648. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

CR


July 22, 2004


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